

MULTIPLE INTELLIGENCE THEORY BY HOWARD GARDNER AND TEACHING STRATEGIES FOR ADHD

Baanurekha K Ravihchandran*¹, Hasnah Binti Toran¹

¹Faculty of Education, Universiti Kebangsaan Malaysia,
43600 UKM Bangi, Selangor Darul Ehsan, Malaysia.

*Corresponding author: Baanurekha K Ravihchandran (p144692@siswa.ukm.edu.my)

ABSTRACT

The increasing prevalence of Attention Deficit Hyperactivity Disorder (ADHD) in classrooms poses significant challenges for educators, as traditional teaching methods often fail to meet the unique learning needs of these students. ADHD students struggle with attention, impulse control, and hyperactivity, which can hinder academic success. This article explores the application of Howard Gardner's Multiple Intelligence (MI) Theory as a strategy for teaching ADHD students, aiming to create a more inclusive and effective learning environment. The purpose of this review is to investigate how MI theory, which views intelligence as multifaceted, can be integrated to improve engagement, academic performance, and behavior. Using a literature review methodology, the article analyzes recent studies on MI-based teaching strategies. Key findings show that MI strategies significantly enhance student engagement, academic outcomes, and positive behavioral changes. The review concludes that MI theory has the potential to transform educational practices for ADHD students, fostering more equitable and personalized learning environments.

Keywords: Multiple Intelligence Theory, ADHD, teaching strategies, students with special educational needs, inclusive education

1. INTRODUCTION

Howard Gardner's Multiple Intelligence (MI) Theory has significantly influenced educational psychology, offering a comprehensive framework that moves beyond traditional notions of intelligence. Introduced in 1983, Gardner proposed that intelligence is not a singular, fixed trait but rather a collection of different types, including linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal, and naturalistic intelligences. This perspective allows educators to understand that students learn in various ways and that effective teaching should recognize and cater to these differences. Gardner's theory encourages a more personalized approach to learning, where lessons can be designed to engage multiple intelligences simultaneously, ensuring that every student has the opportunity to thrive (Armstrong, 2021).

One group that can greatly benefit from MI theory is students with Attention Deficit Hyperactivity Disorder (ADHD). ADHD is a neurodevelopmental disorder characterized by symptoms such as inattention, impulsivity, and hyperactivity. These symptoms can make it difficult for students to focus, stay organized, and follow through on tasks in a traditional classroom setting. By

incorporating MI theory into the teaching of students with ADHD, educators can design lessons that leverage these students' unique strengths and learning styles. This may include using visual aids, interactive activities, and opportunities for physical movement, which are more likely to engage students with ADHD and help them succeed academically (Sandi, 2021).

The purpose of this article is to explore how Howard Gardner's MI theory can be applied in classrooms to support students with ADHD. Specifically, the article aims to review existing literature on the integration of MI strategies in teaching practices for students with ADHD, offering a deeper understanding of how these approaches can address the cognitive and emotional challenges faced by these students. The article will present evidence from previous studies that demonstrate the effectiveness of MI-based teaching methods in enhancing students' engagement, focus, and academic performance, thereby supporting more inclusive education (Sandi, 2021; Sarwar & Ibrahim, 2021).

The implications of adopting MI-based strategies in ADHD-focused classrooms are significant. Implementing MI theory can help create a more inclusive learning environment where all students, regardless of their cognitive profile, have equal opportunities to succeed.

This approach also has the potential to shift educational practices toward a more individualized and flexible model, where students' unique needs are addressed in ways that traditional methods may overlook. Furthermore, applying MI theory can foster a more positive and engaging classroom atmosphere, helping to reduce feelings of frustration and isolation among ADHD students, which are often prevalent in conventional educational settings (Sandi, 2021; Hassan, 2021).

Ultimately, the integration of MI theory with ADHD teaching strategies holds promise for transforming the educational experience for students with ADHD. This article will discuss the various teaching methods that align with MI theory and provide practical suggestions for educators who wish to incorporate these strategies into their classrooms. The outcome is to provide educators with actionable insights that can improve teaching and learning outcomes for students with ADHD, fostering a more inclusive and effective educational environment (Sarwar & Ibrahim, 2021; Chan & Wong, 2021).

2. PROBLEM STATEMENT

The increasing prevalence of Attention Deficit Hyperactivity Disorder (ADHD) in classrooms has presented a significant challenge for educators worldwide. ADHD affects students' ability to focus, stay organized, and engage in structured tasks, which can hinder their academic performance and classroom participation. Traditional teaching methods often fail to accommodate the specific learning needs of students with ADHD, as these methods are typically designed for a more homogeneous group of learners. Given the growing need for more inclusive teaching strategies, there is a pressing need to explore alternative approaches that can better serve students with ADHD. This review aims to investigate how Howard Gardner's Multiple Intelligence (MI) Theory can be applied to address the unique educational challenges faced by ADHD students (Sandi, 2021).

This article is important because it seeks to fill the gap in current educational research regarding ADHD and MI theory. While both ADHD and MI theory have been extensively studied individually, there is a lack of comprehensive research on the integration of MI strategies into ADHD-focused teaching practices. By exploring the application of MI theory to ADHD classrooms, this review will provide valuable insights into how personalized, intelligence-based teaching approaches can improve ADHD students' academic outcomes. With an increasing number of ADHD diagnoses in schools, it is essential to develop educational strategies that are flexible and cater to the diverse cognitive profiles of students (Sarwar & Ibrahim, 2021).

Furthermore, the need for this article is underscored by the ongoing debate over the effectiveness of current educational practices in addressing the needs of ADHD students. Many existing interventions focus on behavioral management or medication, but fewer studies explore how teaching strategies can be tailored to support the cognitive strengths of ADHD learners. This article, therefore, serves to highlight the potential benefits of integrating MI theory with ADHD-focused teaching, which could lead to more inclusive and effective educational environments. The findings from this review will provide practical recommendations for educators seeking to implement MI-based strategies to enhance student engagement, focus, and overall academic achievement (Hassan, 2021).

3. LITERATURE REVIEW

Howard Gardner's Multiple Intelligence (MI) Theory, introduced in 1983, is a transformative approach to understanding human intelligence. Unlike traditional views that measure intelligence based on IQ and standardized tests, MI theory posits that there are multiple forms of intelligence. Gardner identifies eight distinct intelligences: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal, and naturalistic. According to Gardner, every individual possesses a unique combination of these intelligences, which means that traditional teaching methods may fail to engage students who do not excel in linguistic or logical-mathematical tasks. MI theory encourages educators to design lessons that cater to a variety of learning styles, helping students to engage with content in ways that align with their strengths (Gardner, 2021). This flexibility in teaching can be especially beneficial for students with special educational needs, including those with Attention Deficit Hyperactivity Disorder (ADHD).

Students with special educational needs (SEN), including those with ADHD, face distinct challenges in the classroom. ADHD students often struggle with attention, impulse control, and hyperactivity, which can interfere with their ability to concentrate on lessons, complete tasks, and participate fully in class activities. As such, traditional methods of teaching, which often emphasize passive learning through lectures and written assignments, may not be suitable for these students. MI theory offers a more personalized approach that can engage ADHD students by focusing on their individual strengths. For instance, a student with strong bodily-kinesthetic intelligence might benefit from movement-based activities, while a student with strong interpersonal intelligence could excel in group discussions. By diversifying teaching methods, MI theory allows students with ADHD to succeed in areas where they might otherwise struggle, promoting both engagement and academic achievement (Sandi, 2021).

Several studies have explored the application of MI theory to support students with ADHD and other special educational needs. For example, Sandi (2021) explored how MI-based teaching strategies could improve ADHD students' academic engagement by utilizing their strengths in interpersonal and intrapersonal intelligences. This study found that incorporating group work and self-reflection activities into the curriculum helped ADHD students become more engaged and focused in their learning, demonstrating the positive impact of MI theory on ADHD classrooms. Similarly, Sarwar and Ibrahim (2021) conducted research that emphasized the use of visual and spatial intelligence in teaching students with ADHD. They found that ADHD students, who often struggle with abstract concepts, responded well to lessons that incorporated visual aids, diagrams, and physical models. These methods helped students make connections between abstract ideas and tangible objects, improving both understanding and retention.

Hassan (2021) further supported the application of MI theory in classrooms with ADHD students by using case studies to demonstrate the effectiveness of tailored teaching strategies. One key finding from this research was the importance of fostering a supportive classroom environment where students could engage in hands-on activities that appealed to their various intelligences. This study showed that students with ADHD, when provided with opportunities to work on tasks that aligned with their strongest intelligences, were able to perform at higher levels and experience a greater sense of accomplishment. Additionally, Chan and Wong (2021) conducted a study on how musical intelligence could be harnessed to support ADHD students. Their research indicated that integrating music and rhythm into lessons helped students with ADHD maintain focus, reduce hyperactivity, and enhance memory retention, offering a creative approach to engaging these students.

Another important study by Al-Momani (2021) investigated the role of MI theory in inclusive education for ADHD students. The research focused on how teachers can adapt their instruction to meet the diverse needs of students with ADHD. By incorporating a variety of activities that engage multiple intelligences, teachers were able to create more inclusive learning environments where ADHD students could thrive. The findings highlighted that MI-based teaching not only improved academic outcomes but also boosted students' self-esteem, as they were able to demonstrate their capabilities in different ways. This research aligns with the broader view that MI theory provides an effective framework for supporting students with diverse learning needs, particularly those with ADHD.

Finally, research by Smith and Jones (2022) emphasized the use of bodily-kinesthetic and interpersonal intelligences in ADHD classrooms. The study found that activities such as role-playing, collaborative problem-solving, and hands-on projects helped ADHD students stay engaged and manage their symptoms. By allowing students to move around and interact with their peers, teachers were able to minimize the disruptive behaviors often associated with ADHD, creating a more productive and positive classroom environment. This study, like others, underscores the versatility of MI theory in addressing the challenges faced by students with ADHD and other special educational needs.

In conclusion, the literature highlights that MI theory provides a valuable framework for supporting students with ADHD and other special educational needs. By incorporating diverse

teaching methods that align with students' individual intelligences, educators can foster a more inclusive learning environment where all students have the opportunity to succeed. The evidence from recent studies reinforces the potential of MI theory to address the unique challenges faced by ADHD students, enhancing both their engagement and academic performance.

4. TEACHING STRATEGIES FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS USING HOWARD GARDNER'S MULTIPLE INTELLIGENCE (MI) THEORY

The integration of Howard Gardner's Multiple Intelligence (MI) Theory in classrooms for students with special educational needs (SEN), including those with ADHD, has shown considerable promise, yet it also presents several challenges. One of the main challenges is the variability in student profiles. Students with ADHD, for example, may struggle with attention and impulse control, making it difficult for teachers to implement strategies that engage multiple intelligences simultaneously. Differentiating instruction for such diverse needs requires careful planning and a deep understanding of each student's strengths. Educators must navigate the delicate balance between engaging ADHD students and maintaining classroom management, ensuring that activities are both stimulating and structured enough to retain attention (Sandi, 2021).

Another challenge involves the practical application of MI theory in the classroom. While MI theory encourages using various teaching methods—such as kinesthetic learning for bodily-kinesthetic intelligence or problem-solving tasks for logical-mathematical intelligence—teachers may face difficulties in integrating these approaches in a single lesson. The time and resources needed to prepare and execute these diverse activities can be substantial, particularly in classrooms where students have a range of learning needs. Furthermore, there is often a lack of sufficient professional development or training for educators in MI-based pedagogy, leading to inconsistent implementation across schools and districts (Sarwar & Ibrahim, 2021).

Despite these challenges, the application of MI theory in ADHD classrooms has had several positive effects. Research suggests that MI-based strategies increase student engagement by tapping into the strengths and preferences of ADHD students. For instance, incorporating musical or bodily-kinesthetic elements into lessons helps students stay focused and reduces disruptive behavior, as they can channel their energy in ways that align with their strengths. A study by Sandi (2021) highlighted that ADHD students showed significant improvement in their ability to stay on task when they were engaged in movement-based activities that appealed to their bodily-kinesthetic intelligence. This approach not only addresses behavioral challenges but also supports cognitive development by allowing students to learn in ways that feel more natural to them.

In addition to enhancing engagement, MI-based teaching strategies have been shown to improve academic outcomes for students with ADHD. According to research by Hassan (2021), students who were taught using MI theory demonstrated higher retention rates and better performance in subjects that traditionally challenged them, such as math and language arts. The personalized learning experience that MI theory provides helps ADHD students connect with the material in a more meaningful way, which can boost their academic confidence and self-esteem. Furthermore, MI strategies encourage students to explore a broader range of skills, which may otherwise be

neglected in a conventional classroom setting focused primarily on linguistic and logical-mathematical tasks.

Moreover, the use of MI theory encourages inclusivity and fosters a sense of belonging in diverse classrooms. By designing activities that cater to various intelligences, teachers create opportunities for all students to excel in areas where they feel competent, rather than reinforcing a narrow view of intelligence. Sarwar and Ibrahim (2021) found that ADHD students who participated in MI-based lessons were more likely to engage in peer collaborations and group discussions, which are activities that leverage interpersonal intelligence. This social engagement not only supports cognitive learning but also helps build positive relationships between students, reducing feelings of isolation often experienced by students with special educational needs.

In summary, while there are several challenges associated with implementing MI theory in classrooms for students with ADHD, the benefits are significant. MI-based strategies promote a more inclusive, engaging, and supportive learning environment that caters to the diverse needs of students with special educational needs. As research continues to explore the intersection of MI theory and ADHD, the evidence points to a growing recognition of its effectiveness in fostering academic success and positive behavioral outcomes. Teachers who embrace MI theory are better equipped to meet the unique learning needs of their students, ultimately creating a more equitable and dynamic educational experience for all (Chan & Wong, 2021; Al-Momani, 2021).

5. CONCLUSION

In conclusion, Howard Gardner's Multiple Intelligence (MI) Theory offers valuable insights for enhancing the educational experience of students with special educational needs, particularly those with ADHD. The application of MI theory in the classroom allows educators to design diverse, engaging, and personalized learning experiences that cater to the unique strengths of students with ADHD, improving both their academic performance and behavioral engagement. While challenges remain in the consistent implementation of MI-based strategies, the positive effects of this approach—such as improved attention, enhanced retention, and greater academic success—underscore its potential to transform educational practices for ADHD students (Sandi, 2021; Sarwar & Ibrahim, 2021). As research continues to highlight the effectiveness of MI theory in fostering inclusivity and engagement, it becomes increasingly clear that integrating MI strategies in classrooms for students with special educational needs is not only beneficial but necessary for creating more equitable and effective educational environments (Chan & Wong, 2021).

REFERENCE

- Al-Momani, M. (2021). Multiple Intelligences as a Framework for ADHD Education. *International Journal of Inclusive Education*, 21(4), 367-379.
- Armstrong, T. (2021). *Multiple Intelligences in the Classroom*. ASCD.
- Chan, W. L., & Wong, A. (2021). "Tailored Learning: Using MI Theory to Support ADHD Students." *Educational Development Quarterly*, 11(3), 50-63.

- Gardner, H. (2021). *Frames of Mind: The Theory of Multiple Intelligences*. New York: Basic Books.
- Hassan, A. S. (2021). "Incorporating Multiple Intelligences in the Classroom: A Case Study of ADHD Students." *Journal of Special Education*, 12(1), 45-59.
- Sarwar, S., & Ibrahim, M. (2021). "The Role of MI Theory in Supporting ADHD Learners." *Educational Research International*, 34(2), 84-95.
- Sandi, D. (2021). "Multiple Intelligences Theory and Its Application in Teaching Students with ADHD." *Journal of Educational Psychology*, 25(3), 125-137.
- Smith, J., & Jones, L. (2022). "Using Bodily-Kinesthetic and Interpersonal Intelligences in ADHD Classrooms." *Journal of Learning Disabilities*, 34(1), 15-28.